

Claims

- 1 (Original). A method for detecting a dye bolus
5 injected into the body of a living being, by
irradiating optical radiation into the body (4)
and detecting a response radiation occurring on
the surface of the body, characterized in that a
10 fluorescent dye is injected, an optical excitation
radiation is irradiated into the body, and a
temporal relation between a fluorescent radiation,
which is triggered by the excitation radiation,
and the excitation radiation is measured.
- 15 2 (Original). The method as claimed in claim 1,
characterized in that the excitation radiation is
emitted as a short pulse.
- 20 3 (Previously Presented).The method as claimed in claim
1, characterized in that a time profile of the
fluorescent radiation triggered by the excitation
radiation is determined.
- 25 4 (Previously Presented).The method as claimed in claim
1, characterized in that, for detection of the
fluorescent radiation, the frequency of the
excitation radiation is blocked off by filtering.
- 30 5 (Previously Presented).The method as claimed in claim
1, characterized in that a detection of the
reflected excitation radiation is carried out
simultaneously and in parallel.
- 35 6 (Original). The method as claimed in claim 5,
characterized in that the detection of the
reflected excitation radiation is likewise carried
out with time resolution.

7 (Previously Presented). The method as claimed in claim 1, characterized in that the detected fluorescent radiation is evaluated by assessing the distribution of the measured temporal relation.

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8 (Original). The method as claimed in claim 7, characterized in that a rise in the distribution is used as an indicator for the start of the dye bolus.

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9 (Previously Presented). The method as claimed in claim 1, characterized in that the excitation radiation is irradiated into the body (4) at the head in order to examine the brain.

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10 (Previously Presented). The method as claimed in claim 1, characterized in that the excitation radiation is irradiated into the body (4) in the area of the lungs.

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11 (Original). A device for detecting a dye bolus injected into the body (4) of a living being, with an optical radiation source (1) for irradiating an optical radiation into the body (4), and with a detection arrangement (6-16) for detecting a response radiation emanating from the body (4), characterized in that the optical radiation source (1) is designed to emit an excitation radiation with a first frequency, and the detection arrangement is designed to detect a response radiation with a second frequency different than the first frequency and to determine a temporal relation between the emitted excitation radiation and at least part of the detected response radiation.

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12 (Original). The device as claimed in claim 11, characterized in that the optical radiation source (1) operates in pulsed mode.

- 13 (Previously Presented).The device as claimed in
claim 11, characterized in that the detection
arrangement (6-14) is designed to detect a time
5 profile of the fluorescent radiation triggered by
a pulse of the excitation radiation.
- 14 (Previously Presented).The device as claimed in
claim 11, characterized in that the detection
10 arrangement (6-14) has an optical filter (7) for
blocking off the excitation radiation.
- 15 (Previously Presented).The device as claimed in
claim 11, characterized in that the detection
15 arrangement (6-14) has an additional detector
branch (6'', 8, 10) for detection of reflected
excitation radiation.
- 16 (Previously Presented). The device as claimed in
20 claim 11, characterized in that the detection
arrangement (6-14) has an evaluation unit (14) for
temporal changes of the measured temporal
relation.

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